

# ElectroSense

Marko Vukasinovic, Katie Canedo, Alexis Haley, Aveisha Maharaj and Kayla Mastin

Faculty Advisor:

Client: Dr. Venkat Keshav Chivukula

## 1. Progress of current Milestone (progress matrix)

Task	Completion %	Kayla	Alexis	Marko	To do
1.Compare and select Technical Tools	100%	33%	33%	33%	Completed
2. "Hello world" demo	100%	20%	20%	60%	Process received data through App
3. Resolve Technical Challenges	100%	20%	20%	60%	Process received data through App
4.Compare and select Collaboration Tools	100%	20%	20%	60%	Completed, Continue updating github
5. Requirement Document	0%	0%	0%	100%	Requirement Document
6. Design Document	0%	0%	0%	100%	Design Document
7. Test Plan	0%	0%	0%	100%	Test Plan

2. Discussion (at least a few sentences, ie a paragraph) of each accomplished task (and obstacles) for the current Milestone:
  - Task 1: We have decided on the specific tools we need to use in order to develop our system. The bed sensors connect to an Arduino and each have a respective C++/Arduino library to control their operation. The sensors then send their data to a \_\_ Bluetooth device through the "SoftwareSerial" library. The device outputs that data to a XCode/Swift iPhone app which then receives the bluetooth data using CoreBluetooth, a Swift library. The app then displays the data to the user through a user interface.
  - Task 2: Connected two heart rate sensors to an Arduino alongside a SH-08 bluetooth module. We configured the sensors to display their data to serial and then to the bluetooth module which we have connected to a phone. We have managed to transfer the data to an iPhone using supplier made testing applications. We have also created a demo of the Graphical User Interface in xCode with 6 different menu selections. We have to use the CoreBluetooth library to process the received data now.
  - Task 3: We have managed to have several sessions where our team members learned about the necessary tools and we have gotten used to working in them.
  - Task 4: We have created a github to which we have actively been contributing.
3. Discussion (at least a few sentences, ie a paragraph) of contribution of each team member to the current Milestone:
  - Kayla Mastin: Helped with writing the code for the xCode application as well as documentation.
  - Alexis Haley: Helped with writing the code for the Sensor processing.
  - Marko Vukasinovic: Wrote all the required documentation, created a GitHub for the xCode application for collaboration purposes, created a demo of the Application, wrote the Arduino code for controlling and reading from the Heart Rate sensors, wrote the code for sending the data over bluetooth to a phone.
4. Plan for the next Milestone (task matrix) or  
[skip if this is for Milestone 6]

Task	Kayla	Alexis	Marko
1. Implement, test & demo <i>Heart Rate</i>			
2. Implement, test & demo <i>Pulse Oxymetry</i>			
Implement, test & demo Temperature Sensor			

5. Discussion (at least a few sentences, ie a paragraph) of each planned task for the next Milestone or

"Lessons Learned" if this is for Milestone 6

- Task 1: ...
- Task 2: ...

6. Date(s) of meeting(s) with Client during the current milestone: ...

7. Client feedback on the current milestone

- ... (if Client and Faculty Advisor are the same, write "see Faculty Advisor Feedback below")
- ...
- ...

8. Date(s) of meeting(s) with Faculty Advisor during the current milestone: ...

9. Faculty Advisor feedback on each task for the current Milestone

- Task 1: ...
- Task 2: ...
- Task 3: ...
- Task 4: ...

10. Faculty Advisor Signature: \_\_\_\_\_ Date: \_\_\_\_\_

----- on a separate page -----

11. Evaluation by Faculty Advisor

- Faculty Advisor: detach and return this page to Dr. Chan (HC 214) or email the scores to [pkc@cs.fit.edu](mailto:pkc@cs.fit.edu)

- Score (0-10) for each member: circle a score (or circle two adjacent scores for .25 or write down a real number between 0 and 10)

John Smith	0	1	2	3	4	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10
Jane Doe	0	1	2	3	4	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10

Mark Jones	0	1	2	3	4	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10
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■ Faculty Advisor Signature: \_\_\_\_\_ Date:  
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